

S.E. Baltimore Transportation Impact Study

Analysis of Initial Stakeholder Input

Winter 2005

I. Introduction

As part of a recently-begun comprehensive study of transportation in Southeast Baltimore, the Baltimore City Department of Transportation and U.S. Department of Transportation's John A. Volpe National Transportation Systems Center (Volpe) hosted the first of a series of Stakeholder Advisory Group meetings on October 18, 2004. These initial meetings provided stakeholders with the opportunity to validate Volpe's understanding of issues and possible solutions related to transportation in Southeast Baltimore. Volpe representatives organized issues into seven main areas, which came out of preliminary "scoping" meetings held in summer, 2003. The issue areas include: **development, traffic impact on quality of life, roadway condition, parking, enforcement of existing regulations, transit service, and pedestrian and bicycle accessibility.** Stakeholders validated these seven issue areas and provided useful comments and observations about specific transportation issues in the Southeast. Later meetings will provide opportunities to discuss the results of Volpe's analysis of issues and proposed actions, as well as to share suggestions for achieving "workable solutions," ensuring that stakeholders' viewpoints are addressed throughout the Southeast Study.

This paper first summarizes the process of collecting, processing, and analyzing the initial stakeholder input. We then present an issue-by-issue summary and analysis of the feedback received, according to the seven issue areas listed above. Next, we explain how this analysis allowed us to divide the study area into geographic *focus areas* so that the identified issues can be addressed at a more localized level, and we present the focus areas and their subsequent issues here. Finally, we present several cross-cutting themes that arose from the Stakeholder Advisory Groups sessions, which address multiple issue areas and/or geographic focus areas.

II. Stakeholders

The Stakeholder Advisory Groups that met on October 18, 2004 were:

- Public Agency Technical Advisory Group (TAG)
- Business and Development Advisory Group
- Citizens' Advisory Group

A complete list of Advisory Group members invited to date is included in the Stakeholder Participation Plan, which can be found at:

<http://www.baltimorecity.gov/government/transportation/images/SEPartPlan102104.pdf>

The TAG meeting provided technical expertise and guidance on the seven issue areas identified by Volpe. Representatives of participating public agencies discussed the definitions and parameters of the seven issue areas, within which issue area-specific transportation-related activities or concerns could potentially be included.

The Business and Development Advisory Group and Citizens' Advisory Group each had its own meeting in space generously provided by the Baltimore Metropolitan Council. In the overview portion of each meeting, participants learned of the Study's purpose, the roles and responsibilities of Volpe and the Advisory Groups, and the objective of the meeting—to gain insight into the issue areas and collect more information for a comprehensive analysis. The main portion of each meeting provided ample opportunity for participants to provide Volpe with feedback on the seven issue areas (see page 1).

III. Feedback Collection

Participants in the Business and Development Advisory Group and Citizens' Advisory Group were each presented with seven large maps of the Southeast Study area, with each map dedicated to one of the issue areas. Participants visited each map and used colored stickers to identify and rank the top three locations of concern that relate to each issue area. All locations identified on the map by stickers, along with additional comments written on the map regarding these designated "hot spots," became inputs into a feedback database. This database, which now contains over 200 paired locations and comments, formed a key part of Volpe's analysis of initial stakeholder feedback. Through this analysis, Volpe determined the most useful geographic clusters for analyzing issues raised and for helping generate solutions to address these concerns. Solutions must be both practical to implement and comprehensive, so that the entire Southeast Study area benefits.

While the database includes specific details on street location, stakeholder discussions also focused on broader, policy-driven practices within the area, including enforcement practices and parking regulation programs. Below is an overview of the Business and Development Advisory Group and Citizens' Advisory Group discussions that includes comments on both specific locations and on policy. This matrix is designed to address each of the seven issue areas and to highlight the discussion that occurred around each issue area map during the stakeholder meetings. All comments may not be captured in this overview, but are included in the feedback database.

IV. Issue-By-Issue Summary

This section presents a summary of the comments received, from an issue-by-issue perspective. It is based on feedback from the stakeholder meetings, and reflects specific comments taken from the Business and Development Advisory Group Meeting and Citizens' Advisory Group Meeting. These comments are from participating stakeholders and are not based on group consensus. The table below provides a high-level summary of the feedback received and highlights specific comments taken from these meetings. It is divided into a Business and Development column and a Citizens column to capture comments from each of these meetings.

Issue Area	Overview of Comments	
	Business and Development	Citizens
DEVELOPMENT	Current and future development projects will affect the major arterials of the Southeast area, including President, Boston, and Eastern. Since the eastern end of Boston is shaping up as the eastern gateway to the City, future changes should build upon this opportunity to create this area as the gateway.	Major developments that are coming on-line at or near the same time will create major challenges and opportunities. Forces outside of the Study area (e.g., significant growth in eastern Baltimore County) should also be considered as influences driving transportation-related change in the southeast Study area.
TRAFFIC IMPACT ON QUALITY OF LIFE	Traffic is congested and slowed on several major arterials. President Street southbound is often backed-up with home-bound commuters or people on their way to bars and restaurants in the Southeast area. There is also a need to improve the overall network, specifically the flow of east-west streets and the flow of north-south streets. Alternative routes leading to both President and Orleans should be considered.	In Butcher's Hill, speeding is a common issue that could be addressed by changing one-way pairs to two-way pairs. Tour buses, on Eden Street for example, affect neighborhoods by adding noise and trash to the areas they drive or park in. Throughout the Study Area, better communication can help inform citizens of alternative routes during construction, special events, or congestion.
ROADWAY CONDITION	Roadway deterioration is a major issue, especially as a result of truck traffic going through residential areas. Better management of the road repair lifecycle will help stakeholders understand the duration and costs of different repair options.	General poor road conditions such as bumpy roads, potholes, etc., are a common concern throughout the Study area.

Issue Area	Overview of Comments	
	Business and Development	Citizens
PARKING	There is a lack of parking in many areas including O'Donnell Square, Brewers' Hill, and Boston Street. The timing of restrictions, proper signage, and parking configurations can all be applied to address growing parking demands.	Throughout the study area, coordination with the Parking Authority is a useful tool to determine solutions, including angled parking, garage accessibility, and further enforcement.
ENFORCEMENT OF EXISTING REGULATIONS	Speed limit enforcement is needed on major arterials like Boston Street and at intersections on President, where speed violations often lead to running of lights. Many businesses, for example in Federal Hill, have two-hour parking available for customers; however, the community is working to limit this business parking due to a parking shortage for its own residents.	Illegal truck traffic is a major concern in neighborhoods. Further police enforcement is needed to determine whether particular types of trucks are permitted to be traveling in certain areas. Local truck zones have been established on Boston Street, but it is uncertain whether all the trucks traveling on this route meet the requirements. Illegal parking by tour buses around Eden Street is another issue that requires further enforcement.
TRANSIT SERVICE (water, rail, bus)	Transit service improvements are needed. Currently, several private services exist that are provided by large employers. Transit needs to be added on north-south routes, especially near Eastern Avenue. Many buses are in poor condition, which deters many from riding the current system. Additionally, no transit benefit packages exist for children to enable them to access the city's cultural areas easily. Transportation improvements that address the growing influx of people, employment, etc., should also consider water transportation as a commuter mode.	Transit seems to be misplaced, underused, and uncoordinated in many areas. The lack of a strong multimodal system makes it difficult to travel to points outside of the Study Area (e.g., to connect to rail at Penn Station). If bus routes have limited operating hours for certain routes, parking restrictions in these areas should be changed to allow parking when buses are not in service.

Issue Area	Overview of Comments	
	Business and Development	Citizens
PEDESTRIAN AND BICYCLE ACCESSIBILITY	As more and more developments are built on both sides of the street (e.g., on Boston), there is an increased need to have safe pedestrian crosswalks. Speeding over the bridge on O'Donnell, for example, can create dangerous conditions for pedestrians. Safer bicycle access also needs to be addressed.	Poor visibility along the Pratt and Lombard corridors can create safety issues for pedestrians, especially children crossing the street to get to school. There is also a lack of time to cross the major arterials such as Orleans, which is an obstacle for elderly citizens. Many current routes used by bicyclists are also in poor condition. The Baltimore City's upcoming Bicycle Master Plan may help to establish safer routes and better conditions.

Stakeholders with additional comments on the seven issue areas, or that have identified other areas of interest within the Study area, are requested to send feedback to SEstudy@baltimorecity.gov.

V. Definition of Geographic Focus Areas for Further Analysis

Analysis of stakeholders' comments enabled us to divide the study area into geographic *focus areas* that can address the issues raised at a more targeted localized level. For a short description of how we processed the comments and performed the analysis, please see Appendix A.

The following two criteria were used to define these focus areas:

1. Each focus area should include a set of comment-locations that are in close geographic proximity to one another (e.g., a group of comments that focuses on a particular neighborhood or contiguous set of neighborhoods).
2. Focus areas should be drawn, if possible, so that all or most of the comments included in each area stem from a common factor or set of factors that is/are related to the position or situation of that area. This can help identify unifying concerns for each geographic focus area that can be used to frame further discussions to address the issues.

Using these two criteria, seven geographic focus areas were created (see map on page 6). The focus areas presented below do not reflect neighborhood boundaries, and are instead created to make analysis easier by grouping areas based on trends indicated from stakeholder feedback. The geographic focus areas also serve as building blocks

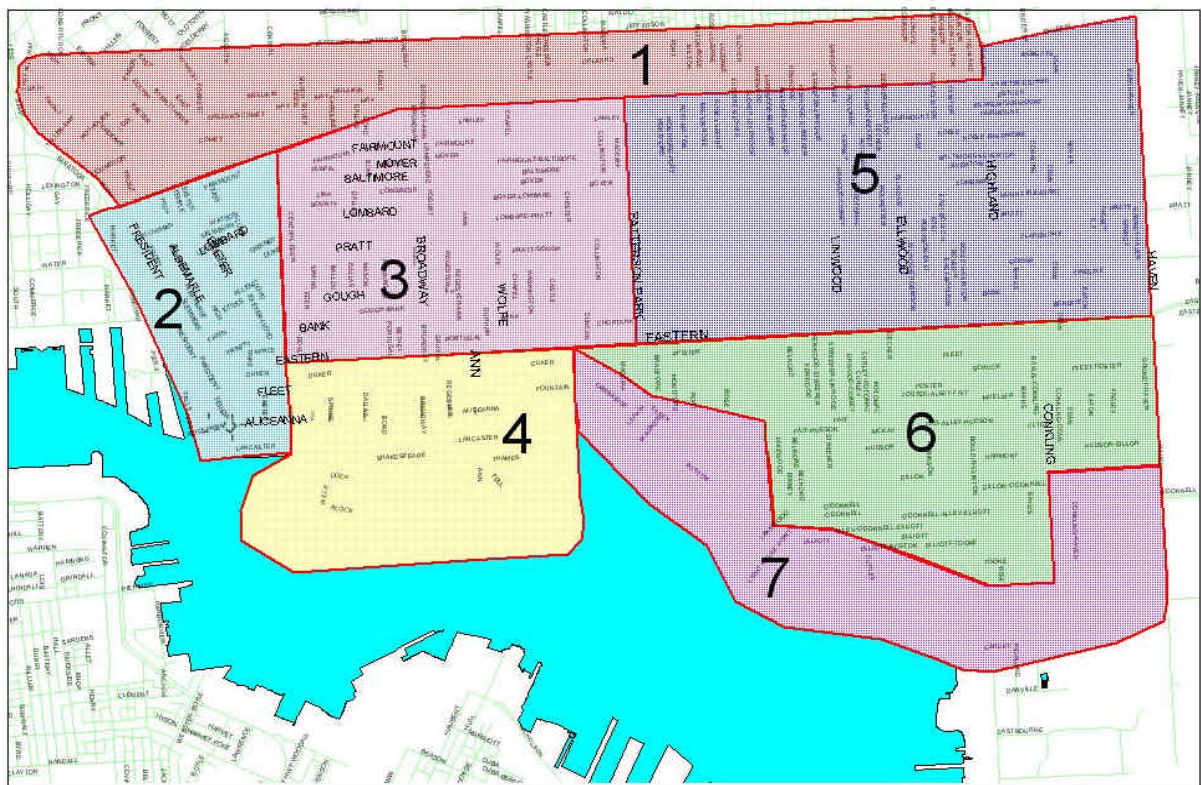
with which to construct a comprehensive approach to addressing transportation issues in Southeast Baltimore.

VI. Geographic Focus Areas

Seven geographic focus areas were created to allow for detailed analysis of specific zones within the large study area that have similar issues or other commonalities. Descriptions of these seven areas follow and include detailed information on issues pertinent to that area. Again, please note that comments are from participating stakeholders and are not based on group consensus.

The map below shows the study area's seven focus areas; a larger version can be found in Appendix B. Related studies that are pertinent to Volpe's analysis are noted in Appendix C at the end of this document.

Note: The numbering of the seven focus areas in the descriptions that follow is consistent with their labeling as shown on the map.



1) ORLEANS-FAYETTE CORRIDOR

Area Definition: This area is a corridor along Orleans and Fayette Streets and the western end of Pulaski Highway. The corridor begins at the point where Orleans goes over I-83 and where Fayette Street meets President, and continues east to Highland Ave. The corridor's northern boundary is Jefferson Street and its southern boundary is Fayette Street. Arterials in this area are Orleans and Fayette Streets.

This area is the major east-west throughway in the Southeast and is in close proximity to Johns Hopkins Medical Campus and its development. Orleans and Fayette are also often used for access to Pulaski Highway in the east and the downtown Central Business District (CBD) and West Baltimore to the west. It is the policy of Baltimore City to have Orleans serve as a major arterial. Left-turn restrictions on Orleans were instituted in keeping with this policy and have the effect of encouraging local traffic to use Fayette.

Analysis Summary: Although some of the comments received about spillover of traffic lie just north of Orleans and are technically beyond the boundary of the study area, the concerns that are raised stem mainly from patterns of usage of Orleans. Their resolution is dependent upon decisions made about managing streets that are within the study area. We have defined the boundaries of the Orleans-Fayette Corridor focus area to reflect this interdependency.

Key Issues Raised by Stakeholders:

- Spillover of heavy traffic on Orleans onto smaller side streets (e.g., between Patterson Park and Linwood Avenues) and resulting pedestrian and youth bicycle safety impacts on these streets
- Signal timing and the difficulty for pedestrians crossing Orleans, especially for children on the way to School 27
- Roadway conditions along Orleans and at Fayette near Broadway
- Need for increased parking resulting from an increase in traffic
- Increased demands placed on Broadway, Wolfe, and Washington (the northern portions of which are in this focus area) as connectors to and from Hopkins and points south; Broadway is rough from heavy usage and needs better transit service, and Wolfe and Washington experience speeding

Outstanding Questions: Based on the comments on the impacts of increased traffic flow on Orleans affecting neighboring streets and pedestrian safety:

- (1) Do other residents have similar concerns about the portion of the corridor between Patterson Park Ave. and Linwood Ave.?
- (2) Do residents living further west or further east along Orleans/Fayette/ Pulaski also have similar concerns?
- (3) What is the specific concern about signal timing on Orleans in the region north of the Park? Do pedestrians feel that there is insufficient time allotted to cross?
- (4) Where is the shortage of parking in this area? Does it result from an increase in traffic?

2) INNER HARBOR GATEWAY

Area Definition: This area includes President Street, from the waterfront in the south to Fayette in the north, as the main north-south arterial. It also includes a series of east-west arterials that cross President Street, in a corridor extending several blocks to the west of President and east as far as Central Avenue. East-west arterials include the western portions of Baltimore, Lombard, Pratt, Eastern, Fleet, and Aliceanna.

The area serves as a gateway or entry point into the Inner Harbor and southeast Baltimore and also an important exit point for traffic headed north to I-83 or to the CBD. It is experiencing rapid density growth and conversion from industrial uses to commercial and residential ones. The area, which includes the southern portion of Jonestown, Little Italy, Flag House/Albermarle Square, and Inner Harbor East, is also developing as a museum district east of President Street. Attractions include the Flag House, Heritage Walk, the Jewish Museum of Maryland, and the Reginald F. Lewis Museum of Maryland African American History and Culture (opening shortly).

Analysis Summary: It is assumed that as the density of Inner Harbor East continues to increase, the issues outlined in this area will increase in magnitude. Further analysis of concerns about pedestrian safety and the adequacy of existing streets as feeders from the southeast area requires more information, as outlined below under *Outstanding Questions*.

Key Issues Raised by Stakeholders

- Pedestrian safety while crossing President at Eastern and at Pratt and while crossing Lombard at President
- Adequacy of President and feeders from the southeast as main connector (gateway) between the study area and the CBD or I-83
- Capability of existing streets to handle traffic from new development in the Southeast area to I-83, and to accommodate bicycle trips to downtown in a safe and hospitable manner

Outstanding Questions: During the Business and Development Advisory Group meeting, several locations, including the intersection of Pratt and President and several other locations in the southwest corner of this focus area, were marked on the maps as being of concern. However, no explanation was made of the particular concern. Many of these marks were related to two issue areas: development, and traffic impact on quality of life

- (1) What specific concerns stem from these locations?

3) WEST OF THE PARK AREA

Area Definition: This area is a rectangle bounded by Eastern on the south, Fayette on the north, Patterson Park on the east, and Central on the west. East-west arterials include: Baltimore, Lombard, Pratt, Gough, and Eastern. North-south arterials are: Caroline, Broadway, Wolfe, Washington, and Patterson Park.

The area west of the park exudes a classic neighborhood character with the many row houses lining the streets. The Broadway Corridor bisects this area and has its own issues related to its specific location, serving as an arterial connecting the waterfront districts on the south with the Hopkins hospital/employment attractor to the north.

Analysis Summary: Many of the concerns raised about this area seem to stem from the vehicle density and the position of the area, as well as operational aspects of the main streets (one-ways, etc.). Complaints about speeding and truck traffic on the east-west arterials reflect the “in-between” position that this area finds itself in, with attractive “straight-shot” one-way streets connecting President with the west side of the Park. Speeding on north-south arterials also likely stems from their one-way status and desirability as “cut-across” routes connecting the waterfront to points north (possibly Hopkins and related development; this was definitely perceived to be the northern attractor of much traffic on Broadway). However, Washington and Wolfe are designated as arterials to support this north-south traffic. Finally, truck and tour-bus *traffic* and especially truck and bus *parking* on Eden may stem from spillover pressures from the dense Inner Harbor area. Shortage of available parking (for cars) in the southeast portion of this area reflects spillover pressures from Fells Point during peak periods, and also stems from residential density in this area.

Key Issues Raised by Stakeholders: For clarity, we have divided most of the issues raised in this area into those primarily affecting east-west streets, those primarily affecting north-south streets, and those affecting the area in general:

East-west streets:

- Speeding and truck traffic on the east-west arterials
- Pedestrian safety, especially for children crossing without crossing guards, on Pratt east of Broadway (one commenter noted that there have been deaths due to speeding vehicles striking pedestrians at Pratt between Castle and Chester)
- Safety concerns for pedestrians caused by low visibility on Lombard and Pratt
- Truck traffic and enforcement along Baltimore Street

For north-south streets:

- Characteristics of Broadway, Wolfe, and Washington stemming from their use as corridors to and from Hopkins and points south: Broadway is rough from heavy usage and needs better transit service from Fells to Hopkins, and Wolfe and Washington experience speeding.
- High truck and tour-bus traffic on Eden: while there is a legitimate need for truck access onto Eden for businesses located there, the presence of traffic signals on

Central encourages other trucks to use Eden as a bypass from Fayette to points south.

- Parking of tour buses and large-trucks along Eden and in empty lots, resulting in the need for increased parking enforcement

For the area in general:

- Parking availability in the southern and eastern sections of this area
- Parking availability on Sundays between Baltimore and Lombard near Caroline
- Pattern of one-way streets: representatives of four neighborhood associations in this focus area presented a detailed proposal for changing traffic flow and reducing speeding and volume problems through returning some one-way streets to two-way service, and restricting some turns. (Volpe received this proposal through the Baltimore City Department of Transportation as a copy of a letter sent to the director of the Department.)

Outstanding Questions :

- (1) Does the tight parking situation in the southeast portion of this area stem from residential parking demand or from spillover parking of cars of Inner Harbor/Fells Point business patrons?
- (2) What options are available (commuter shuttles; encouraging different travel routes) to address the level of Hopkins-bound traffic on certain arterials?

4) FELLS POINT

Area Definition: This area runs from Eastern south to the waterfront, between Chester Street in the east and Central Avenue in the west. This area carries east-west through traffic for the southern section of southeastern Baltimore. It is experiencing redevelopment and has notable parking shortages. With rapidly increasing density, this area appears to have a convergence of all seven issue areas recognized in this study. East-west arterials include Eastern, Fleet, Aliceanna, Lancaster, and Thames. This area includes the southern portions of several north-south arterials: Central, Caroline, Broadway, Wolfe, and Washington.

Analysis Summary: Comments in this area seem to be tied together by the huge development pressures, which spill over into the other issue areas because of the density here. The concentration of “hot spots” identified in the stakeholder meetings (applying to many different issue areas) is located in the center of this region. This suggests that many concerns are tied to the region’s high and increasing density. In several places, demands for residential and business patron parking compete. Parking needs stem from visitors to the area; owners and employees of businesses; patrons of professional services firms, stores, bars, restaurants, and nightclubs; and residents.

Key Issues Raised by Stakeholders:

- Comments addressed all seven issue areas for this location, including concerns with transit, congestion, and capacity.
- Parking concerns included: crowding out of residential parking (west of Broadway between Fleet and Aliceanna) by parking for customers of local businesses; insufficient area covered by the City’s residential parking program (RPP); competition for parking at Ann between Eastern and Fleet between a grocery store and a 13-unit apartment complex; and general lack of parking near intersection of Ann and Eastern.
- Heavy flow of trucks on Aliceanna; poor road conditions on Aliceanna from Caroline to Broadway
- Heavy use of Broadway as the central corridor northwards from the waterfront; these concerns are shared with focus area 3 (West of the Park) and are more fully discussed there.
- There was a suggestion that the City begin to encourage the use of Fleet for non-local truck traffic by using signage to emphasize this.

Outstanding Questions:

- (1) What specific concerns stem from the “hot spots” identified in the center of the focus area?
- (2) Are RPP programs meeting residents’ needs in this area? What are the different options for business parking and resident parking?

5) PATTERSON PARK AREA

Area Definition: This area is a rectangle running from Fayette and Pulaski in the north to Eastern in the south, and from Patterson Park Avenue eastward to Haven. The area is primarily residential, although there are some commercial areas. To the east, the area begins to take on an industrial character. East-west arterials in the area include Baltimore and Eastern, while the north-south arterials are Linwood, Ellwood, Highland, Conkling, and Haven.

Analysis Summary: Further analysis of concerns about bicycle/pedestrian safety and transit requires more specific information, as outlined below under *Outstanding Questions*.

Key Issues Raised by Stakeholders:

- Bicycle/pedestrian safety and transit in the Patterson Park area and the streets immediately to the south, with concerns about paths across the Park, crossing Eastern at the Park, and buses stopping at busy intersections along Eastern
- Too many bus stops, with not all bus drivers stopping at all of them -- on the east-side of Eastern (this comment also applies to focus area 6, the Canton/Brewer's Hill area, and is discussed further there)
- Speeding on Eastern, especially on evening/weekends
- The volume of truck traffic north of the Park, primarily on Baltimore Street west of Linwood
- Inhospitability of Linwood to bicyclists (this comment also applies to focus area 6, the Canton/Brewer's Hill area, and appears there as well)
- In Highlandtown, concern about roadway condition and scattered comments about truck signage or signals¹ and pedestrian safety, especially around schools

Outstanding Questions:

- (1) A number of comments were received about pedestrian safety within and around the Park, but nearly all appear to be from the same neighborhood association representative. Do other residents share these concerns?
- (2) What specifically is the concern about transit service and bus-stop patterns on Eastern?
 - (a) Do the comments about buses' stopping at busy intersections reflect concern for the safety of passengers boarding and alighting at those points?
 - (b) Do they reflect a concern that stopping buses lead to traffic congestion at those points?
- (3) What issues are of concern in the northern and eastern portions of this focus area?

¹ The comment, as stated, was about "truck signals." However, we believe that the commenter may have intended to reference truck *signage*, as to our knowledge there are no special traffic signals directed at trucks in this area.

6) CANTON/BREWER'S HILL

Area Definition: This area is bounded by Eastern at the north and has a diagonal southern border skirting the development along Boston Street. The eastern boundary of this area is Haven, between Eastern and Dillon, and then Conkling south of Dillon. O'Donnell Square and Brewer's Hill are neighborhoods in this area. Fleet and O'Donnell are the main east-west arterials in this area, while the main north-south arterials are Linwood, Ellwood, Highland, and Conkling.

Analysis Summary: Because of the localized nature of most relevant comments, it was difficult to discern an overall pattern of concerns about parking and traffic flow in the south-of-the-Park area. The comments about too many bus stops and bus drivers' lack of consistent stopping patterns in Brewer's Hill suggests that placement and frequency of transit stops on the routes in this area may need to be rethought. In addition, the western end of O'Donnell, which lies within this focus area, seems to share some of the concerns (truck traffic, pedestrian safety) as those raised farther east within focus area 7, the Eastern Waterfront Development Corridor.

Key Issues Raised by Stakeholders: For clarity, we have divided most of the issues raised in this area into those primarily affecting the portion of the focus area that lies south of the Park, those affecting the O'Donnell Street area, and those affecting the Brewer's Hill neighborhood (distinct from the Brewer's Hill development):

South of the Park:

- Parking and traffic flow concerns included: Tight parking supply caused by particular popular establishments (example: two bars at the corner of Potomac and Fleet), and particular spots where three-way stop signs were suggested to combat visibility limitations (south of Eastern at Potomac or Decker; Fleet at Potomac or Decker; Foster at Potomac; and Fait at Potomac).
- Parking "impossible" by O'Donnell Square
- Development's impact on traffic flow near Belnord at Foster and Fait.
- Speeding at Fleet and Luzerne
- Inhospitability of Linwood to bicyclists
- Railroad tracks coming through the road surface along Lakewood Ave. near O'Donnell
- Business patron parking shortages: on the southern edge of this area, a business commenter suggested a strategy of identifying city-owned properties and other opportunities for conversion to garages in order to handle evening/weekend parking demands by business and restaurant patrons.

Along O'Donnell:

- Truck traffic on residential throughways
- Lack of pedestrian crosswalks and pedestrian signals along the western portion of O'Donnell.

- Need for all-way stop signs and a street redesign at the intersection of O'Donnell and Lakewood, near St. Casimir's Church.

In Brewer's Hill and Canton:

- Too many MTA bus stops, with not all bus drivers stopping at all of them (on Eastern between East and Bouldin and on Hudson between Highland and Conkling)
- Roadway deterioration along length of Clinton Street

Outstanding Questions:

- (1) What are the specific parking concerns at Foster between Kenwood and Streeter?
- (2) What are the specific transit concerns near Fleet and Linwood?
- (3) What are the enforcement needs at Fait and Linwood and at Kenwood between Foster and Fait?
- (4) What are the issues relating to O'Donnell Street (see also focus area 7, the Eastern Waterfront Development Corridor, for more comments about O'Donnell Street)?
- (5) How widespread is the issue about MTA drivers' lack of consistent use of stops? Is this a signal that the stops or routes should be re-planned?

7) EASTERN WATERFRONT DEVELOPMENT CORRIDOR

Area Definition: This area is a corridor along Boston Street from Chester on the west to Haven on the east. It extends several blocks to the north of Boston and south to the waterfront to include the related developments along the street, especially the Can Company complex and newer developments just west of Clinton Street. East of Conkling, the northern boundary extends further, to Dillon Street including the Brewer's Hill development, and the southern boundary extends all the way to the southern boundary of the Southeast Study area to encompass Canton Crossing. This area serves as the eastern gateway to the city through its access to I-95.

Analysis Summary: As in the Fells Point area, development is a primary concern along Boston Street, which also leads to a variety of comments addressing other issue areas, especially parking. Concerns about truck traffic and roadway or bridge surface along Boston and O'Donnell show that the area's industrial legacy (and its placement along the pathway from existing industry and the interstate to the downtown area) is a key influence in this area. We had only one comment about congestion caused by roadway design (the bottle-neck noted under *Key Issues*), but it seems that that could be a key contributing issue. Several constructive suggestions for operational improvements along Boston were received, and should be kept in mind when planning and testing remediation strategies. The unifying feature of the eastern part of O'Donnell and Boston, extending to the east past the study boundary, is this area's key role as access point/gateway to central Baltimore from industrial areas further to the east and from I-95.

Volpe has recognized that the eastern part of this area serves as one of the gateways into the City, and needs to strike the right balance of being inviting to business and commerce while at the same time properly controlling and routing drivers looking for an easy shortcut downtown.

Key Issues Raised by Stakeholders: For clarity, we have divided most of the issues raised in this area into those primarily affecting Boston Street, those primarily affecting O'Donnell Street, and those affecting other streets in the area:

Along Boston Street:

- One stakeholder stated: "Development along Boston St. [is] attracting all other aspects. (Development is the cause of all other issues if not managed responsibly.)"
- "Crisis level" parking shortage at Hudson St. and feeder streets near the Can Company
- Threat to pedestrian safety caused by the hump in the middle of Boston (as pedestrians will cross streets wherever possible, this hump reduces their safety)
- Truck traffic and enforcement all along Boston
- Poor quality of the roadway surface near Haven, which is especially important because it serves as the eastern gateway
- Bottle-neck nature of Boston Street on the way towards downtown

- Difficulty crossing the intersection with Fleet and Chester at the western terminus of Boston, with a liquor store parking lot increasing confusion at that location
- Along Boston Street itself, stakeholders suggested: rearranging parking on the north side of Boston Street in front of the American Can Company development to address the bottleneck during rush hour, and creating a transit route to the Harbor and back along Boston.

Along O'Donnell Street: Comments pertaining to O'Donnell Street east of Conkling:

- Bridge condition (bridge has been redone, but entrance is rough as construction is not yet complete)
- Speed, on the section near Haven (from field checking, this comment seems to apply just east of Haven)
- Truck traffic along O'Donnell
- Congestion caused by a rail crossing at O'Donnell between Haven and Newkirk Streets
- Lack of street parking
- Pedestrian safety (suggestions included installation of sidewalks, a wider median, and a traffic signal)

On other streets:

- Roadway condition on both Conkling and Haven between O'Donnell and Boston.

Outstanding Questions:

- (1) What are the concerns in this area regarding transit, pedestrian and bicycle accessibility, and enforcement of existing regulations?
- (2) What is the nature of the congestion heading towards downtown on Boston (e.g., severity, time distribution throughout the day, relative makeup of car vs. truck traffic, impact of street geometry, possibility for remediation, etc.)?
- (3) What are the issues on O'Donnell Street? (See also focus area 6, Canton/Brewer's Hill, for comments about O'Donnell Street west of Conkling.

VII. Cross-Cutting Themes

Analysis of feedback received during the stakeholder advisory groups' meetings in October 2004 revealed a number of cross-cutting themes that do not fit neatly into one location or one issue category. Since these themes relate to multiple issues and/or locations outlined in the previous section, they require analysis and addressing at the "whole systems" level. They include conditions or changes (planned or unplanned) in one place that have implications for other areas, both positive and negative. This initial analysis sets the stage for a joint look by all stakeholders in southeast Baltimore and further cross-cutting analysis. Doing that will enable planning later in 2005 that identifies *comprehensive* solutions and will reveal the trade-offs that neighborhood associations, business representatives and the City may want to explore together.

Each of the cross-cutting themes has both a *present* and a *future* dimension. While some issues relate to what is *now* clearly seen by all observers, other issues can only be sketched out in approximate terms, because they relate to what some observers *expect* to see in the near future. While we want to clarify and address *current* issues through this study, we also want to enable planning to address *expected* transportation issues.

The most obvious theme is what everyone knows and agrees on – *new land development puts pressure on the transportation system*. Where agreement is missing is how to balance development pressures and the quality of the transportation network (cars, buses, trucks, bicycles, pedestrians and the transportation infrastructure they require) in terms of key impact indicators (e.g., level of service, speed, safety and environmental quality). Through this project we seek to reveal the trade-offs involved in this balancing, in order to address congestion expected from development coming online in the next five to ten years, including both projects already in the permitting/construction pipeline and projects that can be reasonably predicted at this time.

Within this overarching land development/transportation impact theme, several closely related sub-themes stand out:

- **Transit is not considered effective:** Improvements to the transit system need to address many issues—poor condition of the buses, poor utilization and coordination of routes, the need for good transit maps, etc. Canton and Brewer's Hill neighborhoods, for example, report inconsistent transit service with buses not stopping at all the stops, coupled with an excess of stops that may add to the inefficiency of the system. Smaller shuttle bus routes may be helpful to address the needs of commuters or tourists, while the siting of specific stops can also influence the attractiveness and safety of transit and the efficiency of movement of buses and other traffic. One commenter from Brewer's Hill suggests that placement and frequency of transit stops on the #7, #10, or #22 routes may need to be rethought to address this. It may be worth investigating the feasibility of breaking some longer MTA routes into two shorter routes, in order to provide better service to targeted destinations. Other concerns related to transit include access to specific high-

demand out-of-area destinations, such as the Camden MARC station for travel to Washington, DC. Water modes (taxi and shuttle) also need to be considered. In the short-term, additional financial resources appear unlikely to be available, and proposed solutions are focused on ways to serve existing markets and use existing resources better.

- **Truck enforcement is inconsistent:** Many neighborhoods are unhappy with the truck traffic that travels on their residential streets. However, trucks servicing the Southeast area must continue to travel within the area and on specific designated and authorized routes as they are an important part of the economy of a city—they are responsible for movement of goods for businesses, industry, and individual consumers. Specific routes have been delineated for truck traffic making local stops and for trucks traveling across the Southeast to reach the downtown area. Many residents suggest further enforcement to help determine what trucks are traveling on local roads illegally, and which are authorized to be there. Local truck zones have been established on Boston Street, but it is uncertain whether all the trucks traveling on this route meet the requirements. Education/outreach to the public can help explain to residents what the regulations are and where/why they should expect to see at least some truck traffic in Southeast Baltimore.
- **Parking is not perceived to be adequate:** As in most cities, parking shortages are a reality created by increased residential density, increased car ownership, and expansion of business districts (e.g., O'Donnell Square). Although each neighborhood has its unique parking concerns, the larger issue of increased parking demands is something that can be addressed area-wide. Coordination with the Baltimore City Parking Authority and plans that take into account parking configuration and pricing, timing restrictions, and garage space should all be considered. Because of the mixed-use nature of much of the Study area, strategies for resolving competition for parking between business employees/patrons and local residents also warrant consideration.
- **Conflicting objectives for the transportation system need to be reconciled:** Transportation system design involves a number of sometimes conflicting objectives:
 - efficient, safe through traffic flow
 - adequate local access for all users
 - an attractive, safe environment for non-motorized users (pedestrian, bicycle)
 - minimal detrimental impacts (noise, air pollution) on the local neighborhoodMany proposed actions involve tradeoffs among these objectives, for example, longer pedestrian signals or conversions from one-way to two-way streets may reduce the efficiency of traffic flow.

Education and outreach to the public can help residents understand that proposed solutions need to consider multiple objectives. Meanwhile, the city's practices and standards can be reviewed to ensure that they are adequately addressing all of the objectives for the transportation system.

- **The current extent and safety of the bicycle network is questionable:** Bicyclists in the study area want to have safe routes to take them throughout the Southeast, into the downtown area, or across the City. Having a safe system depends upon safe road conditions (e.g., designated bike lanes or bike routes, well-maintained pavement of sufficient width, etc.) and safety and security when riding through different neighborhoods and land-uses. Certain routes, such as Linwood and Eastern, may be less hospitable to bicyclists or have safety issues, which contributes to the need to determine how best to create this system. Other streets, for example, Bank, may be better options and their use encouraged. The Baltimore City Department of Transportation is currently developing a Bicycle Master Plan, which will help to address safe bicycle routes within the Southeast area and the City as a whole.

Appendix A: Description of processing and analysis of comments marked on maps

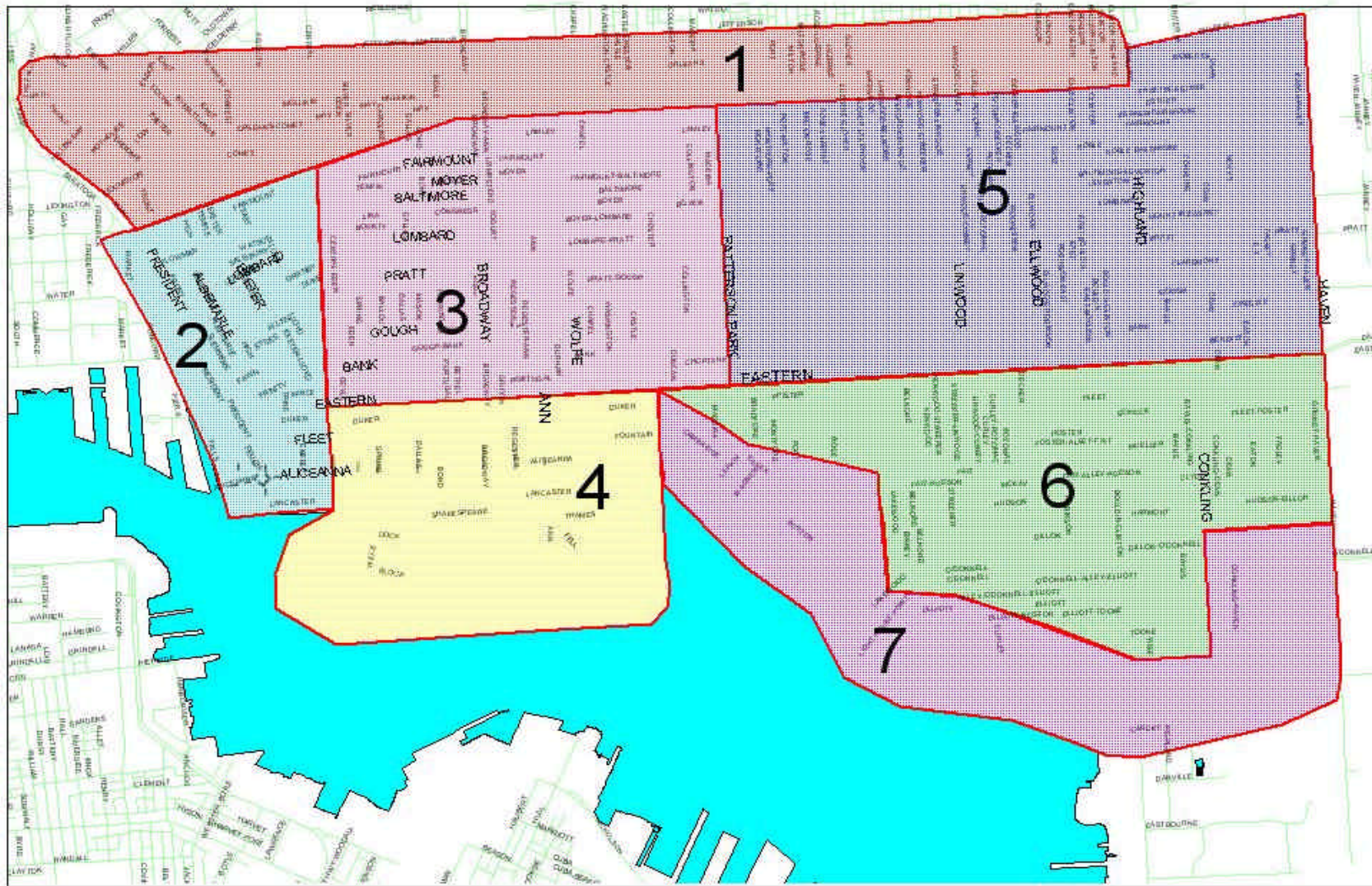
After the October 18th Stakeholder meetings, the Volpe Center team prepared a master spreadsheet containing all of the comments. For each comment, we recorded the relevant issue area, whether the commenter was a business or a citizen representative, what color the dot was (some commenters used different colors of dots to prioritize their comments), location of the comment, exact text of the comment, and initials of commenter (if provided).

We then went through the master spreadsheet line by line and coded each comment into a Geographic Information Systems (GIS) computerized mapping program (we used ArcView GIS 3.2). We located each comment on the map and linked each point to the appropriate full spreadsheet record of information about that comment.

Some comments were best represented as points (applying to a particular intersection), some as lines (applying along a particular street), and some as polygons (applying to all streets/blocks within a particular small area). It is important when viewing the maps to keep in mind that a comment represented as a larger polygon does not inherently represent a more pressing need than one represented as a small point; the sizes of the areas simply reflect the geographic scope of the area to which the commenter referred.

ArcView GIS allows us to sort and analyze the information in a number of different ways, much more conveniently than could ever be accomplished with the original paper maps. We can view all comments, color-coded by issue area, or sort by issue area and view only those relevant comments. We can drag the mouse over several dots on the map to highlight them, and then immediately see highlighted in the accompanying linked database the full details of those comments. These analysis capabilities allowed us to efficiently design and test the boundaries of the geographic focus areas proposed in this report.

Appendix B: Boundaries of Geographic Focus Areas



Appendix C: Related Resources

1) Orleans-Fayette Corridor

- Traffic Impact Study: Orleans, Wolfe, Baltimore and Washington Streets Planned Unit Development (August 2004)
- Baltimore City DPW: East West Transit Connector Final Report; (April 2002) [specifically addresses President Street, Fayette Street]
- Draft Technical Memo: Traffic Impact/Signal Warrant Study for Johns Hopkins' Monument Street Parking Facility, KCI Technologies (2000)
- Update to the 1994 Traffic Masterplan, Prepared for Johns Hopkins Medical Institutions by RK&K (January 1999)

2) Inner Harbor Gateway

- Baltimore Inner Harbor Master Plan Framework Summary (February 2003)
- Baltimore City DPW: East West Transit Connector Final Report; (April 2002) [specifically addresses President Street, Fayette Street]
- Revised Traffic Impact Study for Inner Harbor East, for Struever Bros. Eccles & Rouse, by RK&K (December 2001)
- Greater Fells Point Transportation Study Phase I Final Report and Phase II Draft Report, for Struever Bros. Eccles & Rouse, by KCI Technologies (May 2001, January 2001)
- Traffic Impact Study for Inner Harbor East and Harbor Point, for Struever Bros. Eccles & Rouse, by RK&K (February 2001)
- Traffic Impact Study: Inner Harbor East Hotel, for Stormont Trice Development Corp., by Whitman Requardt and Assoc. (1997)

3) West of the Park Area

- Update to the 1994 Traffic Masterplan, prepared for Johns Hopkins Medical Institutions by RK&K (January 1999)

4) Fells Point

- Swann's Wharf Supplement Traffic Analysis, letter from STV Inc. to the Belt's Corporation; addressed Thames, Aliceanna, Wolfe (November 2002)
- Greater Fells Point Transportation Study Phase I Final Report and Phase II Draft Report, for Struever Bros. Eccles & Rouse, by KCI Technologies (May 2001, January 2001)
- Traffic Impact Study for Inner Harbor East and Harbor Point, for Struever Bros. Eccles & Rouse, by RK&K. (February 2001)
- Fells Point Parking Study, Fells Point Parking and Transportation Subcommittee (2000)

5) Patterson Park Area

- No applicable resources

6) Canton/Brewer's Hill

- Sales brochure for Brewers Hill development, by Struever Bros. Eccles & Rouse (date unknown)
- Final Traffic Impact Study: Brewer's Hill (August 2003)

7) Eastern Waterfront Development Corridor

- Traffic Impact Study: Canton Crossing Planned Unit Development- (September 2003)
- Baltimore's Waterfront Promenade Study: Summary of Recommendations-Draft (July 2000)
- Final Traffic Impact Study: Brewer's Hill (August 2003)